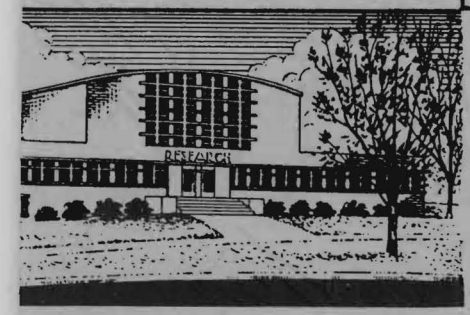
Project B-140-1

METAL LOCKERS

A Manufacturing Opportunity In Georgia

Prepared for
The Georgia Chamber of Commerce
Scott Candler, Secretary

by
Lamar White



Engineering Experiment Station
Georgia Institute of Technology
Atlanta, Georgia

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July 1958

FOREWORD

Like the petroleum refinery study being released almost simultaneously, this report is a unique product of the State's expanding development program. It differs in that it is the outgrowth of action taken during the 1958 session of the General Assembly by a joint House-Senate Industry Committee, which recommended that funds be allocated to the Georgia Department of Commerce for research into the State's industrial potentials. The Industrial Development Branch subsequently entered into a contract with the Department of Commerce, after first submitting a proposal requested by Mr. Scott Candler, Secretary of the Department and Representative Howard Overby, Committee Chairman.

The broad purpose of the study is a practical one: to produce the facts and analysis necessary to determine specific industries which can profitably locate and operate in Georgia. This report, like those which will follow, has a similar purpose: to provide information previously not available on a specific manufacturing opportunity--information of the sort an industrial prospect needs as the basis for his decision to locate a new plant.

The project was carried out under the direction of Research Economist Lamar White. As he has noted, his difficult assignment of securing the data required for the analysis was greatly facilitated by the cooperation of many persons connected with the industry.

The project was assigned a high priority despite the problems it posed because of the strong interest which has already been expressed in the establishment of a locker plant in this area. The decision to make this the first report of the series was based on the Branch's aim of meeting the State's urgent needs for information as well as its longer range needs. The refinery study referred to above typifies projects intended to meet the latter requirement, since an estimated five to seven years would be required to get a refinery into operation.

The second and third reports in this series will follow shortly. The reader's comments are invited on these and subsequent reports. Further information on any particular industry or product evaluated will be provided on request whenever possible.

Kenneth C. Wagner, Head
Industrial Development Branch

PREFACE

For many fabricated metal products, manufacturing in Georgia and the Southeast is still in its infancy. Many new enterprises in this field, and branch plants of established producers, may be expected to appear in Georgia and neighboring states in the years and decades immediately ahead. Some will be justified primarily because of swelling market demand in the region. Those for which Georgia offers favorable resource patterns and conditions of production will serve a much wider market as well. In time, the Southeast's role in metals fabrication should become an increasingly important one.

Earnings in existing metal working industries in Georgia average about 26 per cent above the State average of all workers in manufacturing. At the same time, management finds that there is in Georgia a favorable ratio of labor productivity to labor costs.

The manufacture of metal lockers nationally shows impressive growth in terms of value of shipments. It has increased from $10,395,000 in 1947 to $23,873,000 in 1954. One trade source estimates the 1957 volume at $50 million. Within the South, market demand thus far has been met principally from plants in the older industrialized centers in other regions. Although one is in the process of being established in Mississippi, there is as yet no metal locker factory in the South operated by one of the major established producers.

The objectives of this study are (1) to determine the areas within which a Georgia factory would have a freight rate advantage on metal lockers; and (2) to assemble and analyze all available data indicative of the size and characteristics of the market for lockers within this primary or "nucleus" market area.

The lack of adequate and authoritative statistics for the product precludes accurate market measurement. However, it is hoped that such facts and informed opinion as have been found and sifted will serve to reduce the area of uncertainty.

Data for the report have been obtained mainly by interview and correspondence. Individuals and groups interviewed or corresponded with include office equipment and other specialized dealer firms; Georgia's State School Building Authority; school superintendents; the State Department of Education in Georgia, Florida, and South Carolina;

architects; building contractors, and the manager of the contractors' association in Georgia; manufacturers and distributors of metal lockers and related products; certain publishers' research directors; university purchasing officers; Southern Regional Education Board; hospital and health officials; and industrial departments of railroads.

Grateful acknowledgments are made to the many individuals who gave freely of their time in supplying both factual information and thoughtful opinions. A complete listing would include numerous persons representing specific organizations in the categories mentioned above. Among those who deserve special thanks for their very helpful contributions of time and interest are Mr. J. S. Blackstock; Messrs. R. M. Hairston and W. C. Byers, Jr. of the F. W. Dodge Corporation; Mr. Guy N. Cromwell, Hospital Consultant of the Florida Development Commission; Dr. Allen C. Smith of the Georgia Department of Education, and officials of Georgia's State School Building Authority; Mr. W. E. Uzell of the Georgia Department of Public Health; Mr. W. B. Southerlin of South Carolina's State Educational Finance Commission; and Dr. John K. Folger of the Southern Regional Education Board.

Dr. Ernst W. Swanson and Dr. Kenneth C. Wagner read the text and furnished valuable suggestions. Mr. Joseph E. Kling collaborated in evaluating the questionnaire returns and on problems of statistical analysis. Miss Sylvia Kaufman assisted with the tabulations. Preparation of the manuscript was by Mrs. Mary I. Mauldin under the general supervision of Mrs. Annie F. Edwards.

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I

SUMMARY

Metal lockers show promise as a manufacturing opportunity in Georgia, for several reasons. The item is classified as a "growth" product on the basis of its 130 per cent increase in value of shipments throughout the country from 1947 to 1954. Its sales potentials are associated with population and income trends, and more particularly with school enrollment and the construction of high schools and certain other non-residential buildings. Forecasts for Georgia and neighboring states in the Southeast show impressive upward trends in income and school enrollment during the coming 1960's. Hence, demand for lockers can reasonably be expected to rise in the years ahead.

This particular manufacturing opportunity is best suited for an existing major locker producer, or for an established Georgia manufacturer already experienced in making similar products. About 80 per cent or more of production costs are for materials--primarily some of the heavier gauges of steel sheet. The production process is basically a pressing operation. This type of metal working industry can do well in Georgia; available labor is adequate for the moderate degrees of skill required. However, correct design and proper tooling are highly important for a paying operation, particularly in making the locker doors. Such equipment, with first-rate dies, is rather expensive.

As yet no major manufacturer of the product is established in the Southeast. Several Georgia metal working establishments have experience in producing lockers on contract, or are equipped to produce them.

The primary market area of a plant located in Georgia, as defined by comparative freight rates on the finished product, would include Georgia, Florida, and South Carolina--with a few deviations from state boundaries. Some variation in the contours would occur as between a site in east central Georgia and one in the west central portion of the State. For proximity to materials and the region's distribution center, a location within about 100 miles of Atlanta would be favorable.

In the primary market area, there appears to be a large and growing volume of demand for metal lockers. Inadequacies in the available market data preclude accurate market measurement. The estimated annual sales potential for the present and immediate future, 1958-59, ranges from 125,000 to 214,000 locker openings.

The total market area for a metal locker plant in Georgia should extend considerably beyond the aforementioned three-state area. A large secondary market could be had by a major producer, or by a Georgia firm already doing well in similar items and prepared to undertake a vigorous sales development program. A well chosen Georgia location would offer, in addition to raw materials accessibility and nearness to a sizeable regional market, a favorable ratio of labor productivity to labor costs.

II

THE INDUSTRY IN GENERAL

As classified by the United States Bureau of the Census, metal lockers comprise one segment of the "partitions and fixtures" industry. Very few of the Census statistics are broken down finely enough to apply to metal lockers alone. For example, there are no figures by state or even by region for this product. Derived figures from the larger groupings, generally speaking, cannot be relied upon for accuracy. One possible exception is the average wage rate in 1954 of $1.92 for the entire industry; other evidence suggests that this was also the going rate for major establishments making metal lockers.

In 1954, for the United States as a whole, metal locker shipments totaled some 2.9 million openings (the only quantitative "common denominator"), aggregating $23,873,000 in value. This reflected a large rise from the 1947 level, even after allowance for price inflation, when shipments totaled $10,395,000 in value (no quantity figure was included in the 1947 Census of Manufactures). In the product class "partitions, shelving and lockers" the four largest companies accounted for 41 per cent of the total value of shipments in 1954.

Materials cost is of major importance in the industry. In 1954 the cost of materials is estimated at $10,321,000 or about 43 per cent of the value of shipments. An industry source indicates that materials, primarily sheet steel in gauges 16, 23, and 24, account for over 80 per cent of production costs.

The production process is basically a pressing operation. For the most part, only moderate degrees of skill are required of the work force. However, correct design and proper tooling are highly important, particularly for the openings. As some in the trade put it, "The door is the thing--you are selling a door." The main point is that an inexperienced producer, or one without first-rate equipment and dies, is under a severe competitive disadvantage. The rejects will plague him and perhaps ultimately ruin his business.

Geographically, the largest manufacturers and those with an extensively advertised product include several in Aurora, Illinois; one in Canton, Ohio; one in York, Pennsylvania; and several in the Philadelphia

area. Other large producers are somewhat more distant from the Southeast.

There are a few signs that the industry may be beginning to decentralize. One of the former major producers of metal lockers reportedly has sold this branch of its business, and the production facilities are being moved from St. Louis to Greenwood, Mississippi. A new plant is under construction there, at a reported cost of $350,000. Also, there is a smaller producer at Birmingham, Alabama using a production line occupying 10,000 square feet of space at the Hayes Aircraft plant. The Birmingham producer has an annual capacity of 60,000 locker openings At least one manufacturer of steel products is known to be interested in the possibility of a Georgia operation.

Several Georgia metal working establishments have experience in producing lockers on contract, or are equipped to produce them. None thus far has launched a large-scale sales development program for this particular product.

Rough estimates from trade sources put the 1957 total U. S. shipments at about 4 million openings, aggregating $50 million in value. They put the annual sales volume for lockers in Georgia at 120,000 to 125,000 openings. Reducing the U. S. estimates to a per capita basis, Georgia's "share" would be about 88,000. Estimates prepared for this study, and discussed more fully in another section of this report, indicate a considerably lower volume of 1957 and current sales in Georgia. However, they also point to a large backlog of demand here and a large sales potential in Georgia and certain neighboring states.

III

PRIMARY OR "NUCLEUS" MARKET AREA, AS DELINEATED BY COMPARATIVE FREIGHT RATES

To determine the primary market area for a metal locker plant located in Georgia, the test of freight rates on the finished product has been used. The maps on pages 7 and 8 illustrate the results. For actual freight rate comparisons, it is of course necessary to select specific origin and destination points. A shipping point in the eastern part of the State and one in the western sector were selected. Each is about 100 miles from Atlanta. They are intended to be illustrative of two zones, within each of which a number of localities would warrant consideration in the choice of a factory site. Rail rates were readily available. Although trucks are used to a great extent for shipments of this product and their rates are generally somewhat lower, the rate relationships should be about the same as among competing localities. Within the territories under consideration, shipment by water would probably be negligible.

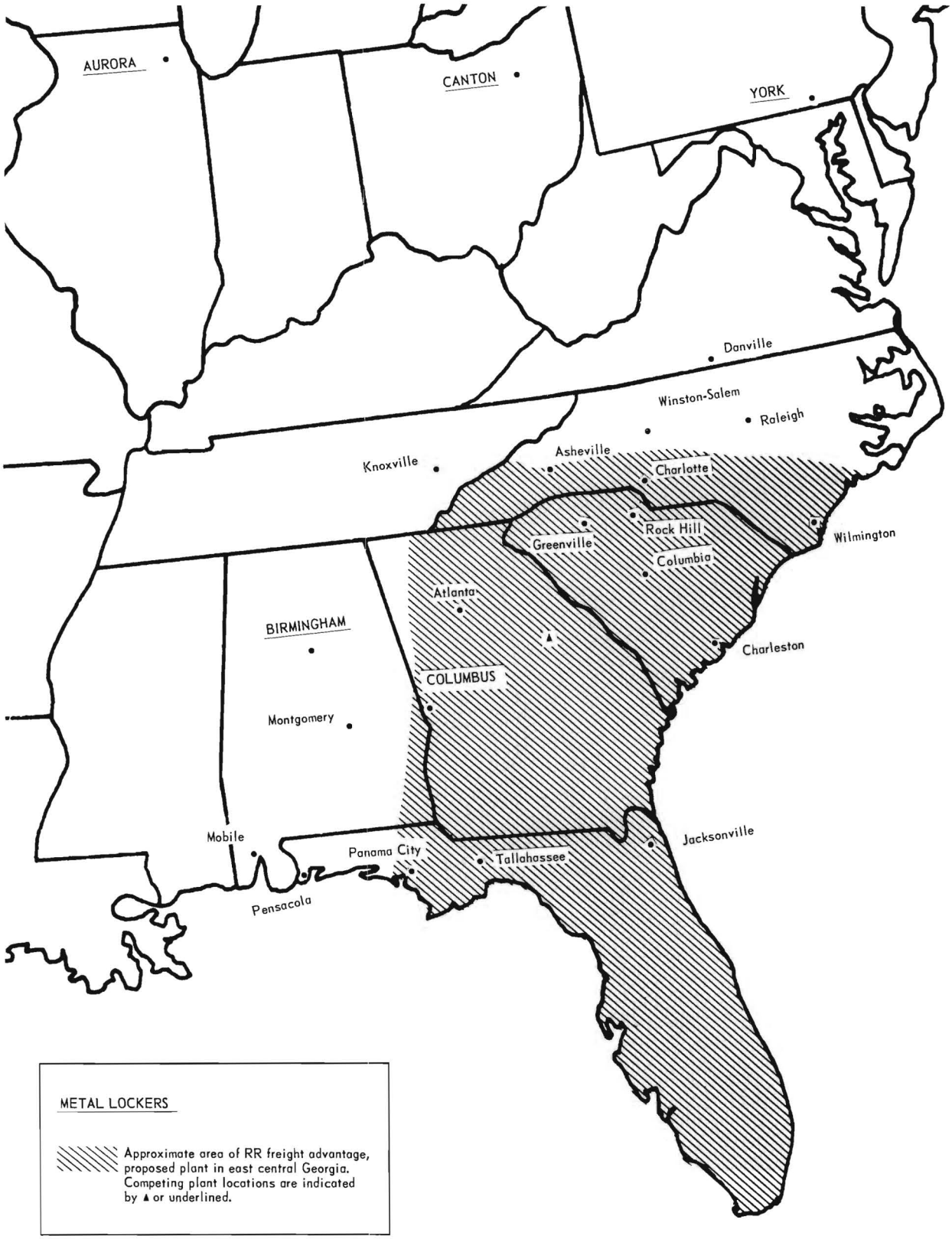
Determination of a proposed plant's primary market area is useful chiefly because it defines a "nucleus" area, within which the local producer should in a comparatively short time gain a large share of the total market, and on which he should rely to absorb a substantial share of his output. The primary market area, as roughly outlined by freight rate comparisons, could well be considerably less than the total market area. Just as a local producer could in no case be expected to capture all of a given local market, it is also realistic to expect a Georgia producer with an effective sales development program to gain a portion of more distant markets. The locker producer in Birmingham started out with the aim of supplying schools, hospitals, clubs, and industrial plants in the Southeast. This producer now says that he can compete successfully in other areas. His advertising emphasizes faster deliveries, lower delivered cost, and highest quality.

A plant in eastern Georgia within about 100 miles from Atlanta could readily meet its steel requirements from Atlanta warehouses. Its outgoing shipments of lockers would enjoy a rate advantage over

out-of-State competition in most of Georgia. The exception would be a western strip of the State including Dalton and Rome and extending southward to LaGrange, where rates would be equalized. Other areas of advantage include Florida east of Panama City; South Carolina; and southern portions of North Carolina including such cities as Asheville, Salisbury, Fayetteville, and Wilmington. In practice, the contours of the "freight advantage" area would be influenced by several variable factors. For example, Charlotte, North Carolina is a distribution center for two major producers (Lyon and Berger) and presumably receives shipments at the lowest carload rates to the greatest extent practicable. (Note in Appendix A the rate differences between 10,000 pounds and 30,000 pounds minima.)

A factory in western Georgia, also about 100 miles from Atlanta, would benefit from the proximity of steel supplies at Atlanta warehouses and from producing mills in Alabama. Outgoing shipments of finished products would enjoy a rate advantage in Georgia, except for the northwestern corner including Rome and Dalton; in the east central and southeastern portions of Alabama; in nearly all of Florida (rates are equal at Pensacola); in South Carolina; and in the aforementioned southern portions of North Carolina. This favorable rate situation is due in part to the fact that the origin point benefits from the competition of several railroads. (The origin point selected in eastern Georgia is served by a single railroad.) Since truck rates are related to competing rail rates, a similar pattern may be assumed for those rates.

A manufacturer selecting a plant location from among various possible communities in Georgia would of course consider many factors other than transportation. The quantity and suitability of available labor would be of considerable importance. Community attitudes and appearance, together with other intangible factors, often can prove to be of surprising importance. In recent years, the willingness and ability of civic leaders to assure the availability of a building on a rental or lease-purchase basis often becomes a decisive factor in plant location. Even large firms are sometimes reluctant to tie up large amounts of capital in a building.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Winston-Salem
Raleigh
Knoxville
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Rock Hill
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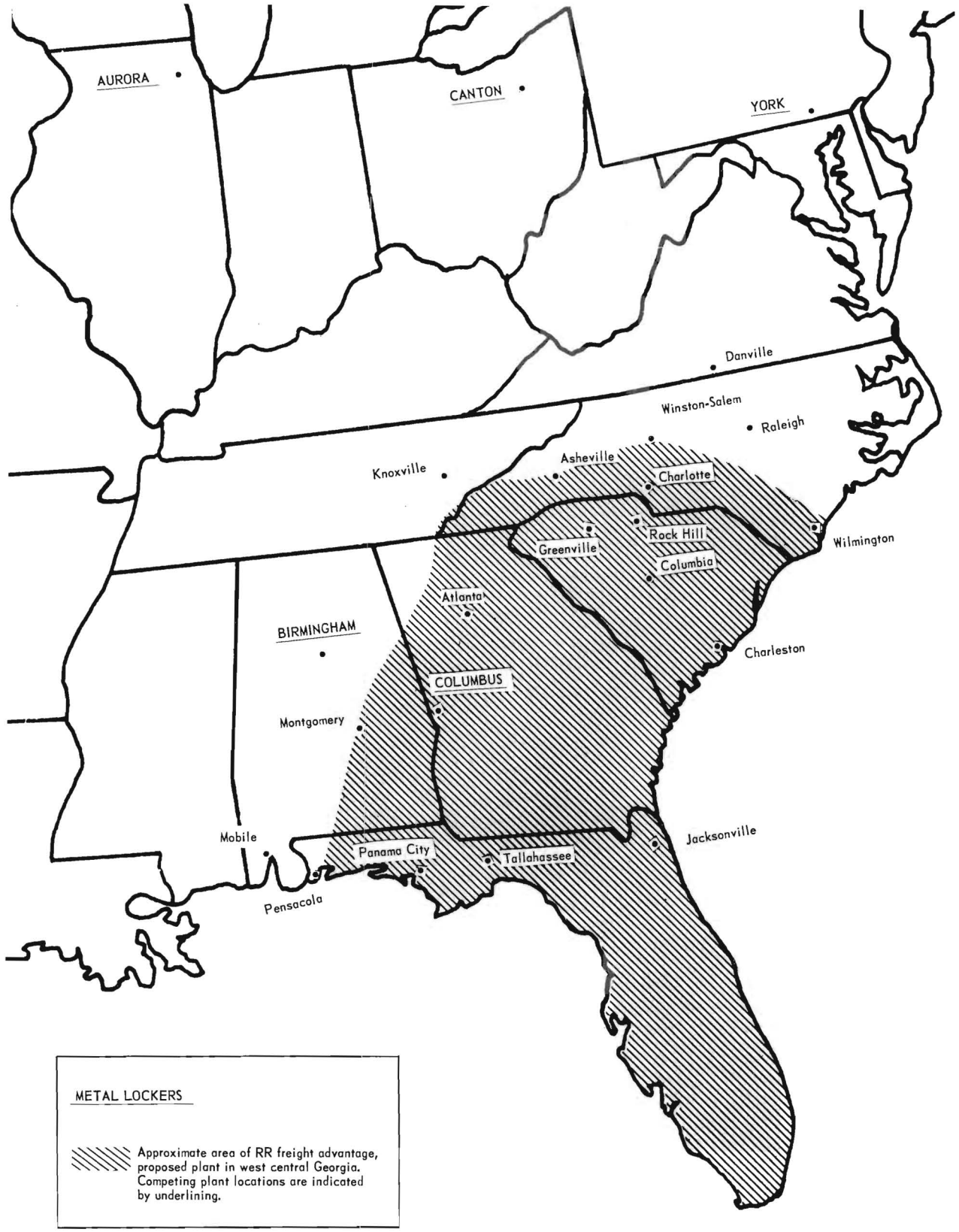
Columbia
Wilmington
Atlanta
BIRMINGHAM
Charleston
COLUMBUS
Montgomery
Mobile
Panama City
Tallahassee
Jacksonville
Pensacola
METAL LOCKERS
Approximate area of RR freight advantage, proposed plant in east central Georgia. Competing plant locations are indicated by ▲ or underlined.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Mobile
Jacksonville
Panama City
Tallahassee
Pensacola
METAL LOCKERS
Approximate area of RR freight advantage, proposed plant in west central Georgia. Competing plant locations are indicated by underlining.

IV

MARKET CHARACTERISTICS AND VOLUME

Three significant limitations must be recognized in the task of studying the market for metal lockers. The product is durable and seldom needs replacing. It comprises only one segment (a seven-digit sub-classification) of the "partitions and fixtures" industry (now "metal partitions and fixtures") as defined by the Bureau of the Census. Secondly, there is no trade or manufacturers' association to collect and maintain statistics on the product and the industry. Useful statistical, or even descriptive, information from literature sources evidently is extremely sparse. The only authoritative benchmark data found consist of a limited amount from the U. S. Census of Manufactures for 1947 and 1954. For metal lockers, Census figures are not broken down by state or even by region.

In an effort to fill the large gaps left by the paucity of benchmark data and the lack of an industry or trade association, much information relating to school enrollment and attendance and some categories of building construction has been assembled and analyzed. Chief reliance has been placed on estimated locker demand in schools and hospitals in estimating the total statewide market. The following "trial balance" breakdown of the total Georgia market by user groups is based on two independent estimates by trade sources.

User Group	Per Cent of Total
Educational institutions (mainly public high schools)	65
Factories	20
Hospitals	5
All other	10
Total	100

Trade sources also stated that about 60 per cent of total locker sales nationwide are for use in schools. Early in the study it became apparent that the schools' demand for lockers deserved a considerable amount of attention.

To test these rule-of-thumb estimates of market composition by user groups, the Industrial Development Branch developed questionnaires.

These were sent to Georgia school superintendents and to selected groups of large-volume building contractors in Georgia and Florida. (For questions asked, see Appendix B.) The questionnaire returns and interviews with knowledgable persons in the educational, construction, and other fields provided much useful information.

GEORGIA

Schools - The Building Program in Recent Years

Georgia has 199 local school systems including 158 county systems, 40 independent city systems, and one city-county "hybrid."* Under existing laws, county systems have the authority to levy a total of 15 mills for current expenses. Total bonding ability for county systems is limited to 7 per cent of the county's property digest. The basis for financing current expenses of the independent city school systems is specified in their respective charters. Bonding ability of cities is also limited to 7 per cent of the property digest, and schools must share with other governmental agencies in the distribution of such bond funds.

Beginning in 1951-52, the State of Georgia launched a substantial school building program to overcome a huge deficit in classroom facilities and to cope with continuing large enrollment increases. The State School Building Authority Law of 1951 made it possible for school systems to capitalize their annual allotments of State capital outlay funds for a period of 20 years, and to meet critical school building needs immediately. The general magnitude of school building expenditures from 1951 through 1957 has been about $200 million in funds allotted by the State School Building Authority, and some $150 million through local bond issues. Some federal funds under Public Law 815 have also been used. The SSBA's funds have been used or committed, although some of the schools thus financed are still under construction.

As of May 1958, most of Georgia's cumulative classroom requirements had been met. No new State-financed school building program is

*The number actually operating as independent systems varies slightly from year to year. For the 1958-59 school year, 38 are expected to operate as independent systems.

expected before 1959, when the State Legislature meets again. Meanwhile, however, a number of localities have approved, or are in the process of approving, new school bond issues.

Georgia's "catching up" process on classrooms does not mean that the full demand for school lockers has been met. In most instances localities have chosen to use their entire allotments of SSBA funds for buildings. Less than 2,000 lockers were bought with SSBA funds in 1957.*

The new buildings have not gone up solely in the urban areas where enrollment and attendance have increased most rapidly. At least one new structure has been built in virtually every county. One architect who has handled 27 high school building projects in the past five years states that metal lockers have been provided for in only two of the contracts. Among the school superintendents responding to the mail questionnaire, relatively few report a supply of metal lockers, even in corridors, equal to average daily attendance in their high schools. The deficit for physical education programs is much larger.

The State's building program makes no provision for physical education facilities. There are, in fact, many high schools in the State lacking such facilities entirely. Some localities are now building gymnasiums (or equivalent facilities, such as "gymnatoriums") with local funds. Still others have physical education buildings and equipment, but report a substantial unmet requirement for lockers (or wire baskets and steel racks). In many others, the reported supply is much lower than average daily attendance. At the end of the 1955-56 school year, 15 senior high schools and 309 combination high and elementary schools lacked physical education facilities. In addition, some schools have facilities which should be replaced.

Ideally, each high school should have a supply of hall locker openings corresponding closely to net enrollment, plus lockers or baskets in gyms corresponding to net physical education enrollment.

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*The informal count by the SSBA, believed to be substantially accurate, is 1,834.

For the near future, perhaps a more realistic goal is to match average daily attendance figures in each high school. For a number of the counties with seriously inadequate budgets, even this goal may well be unrealistic for a time. Studies of local ability to finance school construction in Georgia show that most local school systems do not now have the ability to finance their needs. The total school market in terms of needs is very large indeed; in terms of financial and budgetary realities, it is still largely a backlog, or a potential--unless and until some mutally acceptable installment payment system can be worked out.

Locker Purchases for Schools in 1957 - Questionnaire Results

In 1957, reporting contractors (24 of the 123 selected large contracting firms in Georgia) bought 3,033 locker openings for schools. If the other 99 bought at the same rate, the total would be 15,545.

The school superintendents responding to the questionnaire reported aggregate purchases of 5,600 locker openings in 1957. Projections from this sample (about 37 per cent of the school districts, representing some 43 per cent of total Statewide attendance in 1955-56 and 41 per cent of that estimated for 1957-58, furnished definite answers to the question of 1957 purchases) to each of the attendance totals yield estimates of 13,056 and 13,737, or an average of about 13,400 locker openings.

Purchases on behalf of local schools by the State School Building Authority (less than 2,000 in 1957) presumably are accounted for in the superintendents' tally as projected. However, it seems likely that the quantities reported separately by contractors (who installed them as part of the contract) may be added to those by superintendents to obtain a reasonably satisfactory estimate of the true total of 1957 purchases for public high schools. The combined total is 28,945.

Estimates of Locker Requirements in Schools

Returns from the questionnaire to school superintendents in Georgia report an unmet requirement of 25,871 locker openings and 13,320 wire gym baskets in the school systems responding. The latter represent 47 per cent of all systems, 59 per cent of total high school average daily attendance in 1955-56 and 58 per cent of the estimated 1957-1958 ADA.

Projections from the responding systems to all systems suggest a minimum unmet requirement of about 75,000 "locker equivalents" (locker openings and gym baskets) in all of the State's public high schools. The estimating method used involved a series of projections by size groups using 1955-56* ADA figures and reported locker "deficits" (unmet requirements).

The computed results are: 49,726 locker openings and 25,354 baskets. Including estimates inferred from the information supplied by responding school administrators who did not include specific deficit figures, the projected total backlog of demand is well over 100,000 "locker equivalents" (about 80,300 locker openings and 28,300 baskets).

Using available data on all new high schools and high school additions now under construction--a total of 31 projects in 19 different school systems--a new demand for about 18,700 locker openings in halls and 11,100 "locker equivalents" in gyms is estimated.

In addition to the foregoing, a careful check of potential new construction (starting in 1958 or 1959) shows that preliminary approval of the State School Building Authority has been obtained for projects involving 10 new high schools, seven high school classroom additions, and six new gymnasiums. Also, a number of new local bond issues have been approved recently, including a five million dollar issue in Muscogee County. Forecasted new school construction in Fulton County in 1958 and 1959 is expected to create a demand for some 1,600 to 1,750 "locker equivalents."

Volume estimates for the schools component of the total locker market demand must take account of what might be called the ready market, as well as the backlog of unmet needs. The ready market is measured primarily by construction of new high schools or additions in a limited number of systems--those such as Atlanta, where the budget situation makes possible the prompt purchasing of needed lockers.

Continuing increases in enrollment and attendance are in Georgia a secondary factor of new locker business. Statistics and projections by the State Department of Education for grades eight through twelve

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*1955-56 is the latest school year for which complete ADA figures by school system are available.

indicate heavy increases in the early 1960's, following temporary dips in the current year and in 1958-59.

School Year	Total Enrollment	Total ADA	ADA Increase or Decrease (-) from Prior Year
1955-56	238,399	202,837	--
1956-57	250,103	211,442	8,605
1957-58	248,215	209,990*	-1,452
1958-59	241,116	204,225*	-5,765
1959-60	250,772	212,612*	8,387
1960-61	263,736	223,912*	11,300
1961-62	272,660	231,761*	7,849
1962-63	282,170	239,845*	8,084

*Estimate inferred from other data supplied by the State Department of Education

The Statewide figures tell only part of the story. They do not reflect the important and continuing population shifts within the State, primarily from rural to urban areas. Much of the new construction in recent years has been to provide adequate classroom facilities in all counties, including many with declining populations. Continuing construction is needed to meet new capacity requirements of school systems where population is increasing.

The third segment of the school market for a particular period is represented by whatever portion of the backlog is transformed into actual demand by the availability of funds at the local level. As Georgia begins to catch up with its needs for physical education building facilities, the demand for lockers and wire baskets will become increasingly pressing. If local economic conditions are then favorable, there may well be sudden and considerable increases in locker sales.

For 1958 and 1959 estimated sales potential, it is assumed that the current rate of school construction will continue during the two-year period. A further assumption is that requirements for new schools and additions (30,000 openings "now on the horizon" and perhaps 30,000 more by the end of 1959) will be 80 per cent met, plus perhaps 25 per cent of the accumulated backlog (say, 80,000 to 100,000). Thus:

60,000 X .80 = 48,000 or 24,000 per year

80,000 to 100,000 X .25 = 20,000 to 25,000,
or 10,000 to 12,500 per year.

This gives a range of 34,000 to 36,500 for Georgia's public high schools. Allowing an arbitrary 3,000 per year for private high schools plus colleges and all other schools* results in a total estimate of 37,000 to 39,500 annually for all educational institutions.

Much of the total "locker" demand in schools, it should be remembered, will be for wire baskets and the steel racks to hold them. One popular size of these racks holds 32 baskets (12" x 13" x 8" each), four across in eight vertical columns. A number of locker manufacturers also produce steel racks and other related steel products.

Schools--The Procurement Process for Lockers

Many of the newer schools are completely finished and are used for some time before lockers are bought and installed.

It appears that outside the Atlanta area and a few other localities, lockers usually are not provided for in the construction contract. But when they are included in the contract, the architect's specifications are an important consideration. Nineteen of the leading architectural firms handling school contracts were interviewed. Although the consensus was that lockers usually are not included in the final contract, nine indicated that their specifications, when used, called for one or more particular makes "or equal." Five of the firms specify two or more particular makes of lockers as acceptable. One describes the acceptable characteristics of the lockers and omits mention of a manufacturer. One uses two or more of the foregoing methods, and three of those rarely writing such specifications stated no method. An official of the building contractors' association indicated that there is a strong sentiment among the contractors for specifications naming two or more acceptable products, omitting "or equal" and thus eliminating a potential minor haggle. In any case, the architect has to be "sold" on the product's suitability before the contractors will buy it.

If, as in most cases, procurement of lockers is not in the building contract, they may be purchased during or after construction in any one of several ways. The locality may ask the State School Building Authority

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*The latest available enrollment figure for private high schools is 18,892 for 1953-54, from the U. S. Department of Health, Education and Welfare, Statistics of State School Systems, Chapter 2. The Southern Regional Education Board has estimated 1958 college enrollment in Georgia at about 43,000, a rise of 5,000 from 1952.

to purchase for it out of its allotment of SSBA funds. The SSBA buys only on the basis of specific local requests and accompanying requisitions; in such cases it employs the sealed bid system and prepares the specifications. These mention no manufacturer's name, but describe the technical characteristics of the materials and workmanship required. Or the locality may use local funds and purchase its lockers direct from the factory, from a manufacturer's representative or authorized distributor, or perhaps through a contract with the American Seating Company. (This firm reportedly supplies Berger lockers in "package" contracts, but does not actively seek to include lockers in its contracts.) Many school equipment sales in the State are said to be made through local people who obtain such orders infrequently and then as a sideline. Their overhead is therefore very low. They simply send the order in to a national manufacturer and receive a small commission on the sale.

Factories--Georgia

For factories using lockers, most purchases are handled by the firm's management from a locker manufacturer or his representative, or from a specialized dealer/wholesaler such as Blackstock in Atlanta. A smaller portion (probably not more than a fourth) is purchased by the building contractor, in accordance with the architect's specifications. The contractor's usual procedure is to ask several suppliers for quotations. More frequently, the contractor will be required to install concrete bases only, if lockers are to be used.

Factors governing the use of lockers in a manufacturing establishment include climate; nature of the manufacturing operation, especially the need for changing into and out of special work garments; degree of unionization; and the firm's financial ability to provide this equipment. Among the many types of manufacturing industries customarily using lockers may be listed poultry processing plants, other food processing plants, paper and pulp mills, automobile assembly plants (about 60 per cent of total work force) and printing establishments. In general, textile and apparel plants and sawmills may be excluded. In the factories using lockers, the only known quantitative indicator is the number of production workers.

Procurement practices vary widely among individual manufacturing companies. Branch factories of large national firms often are governed by

established, uniform purchasing arrangements. A new "small business" concern, if it buys lockers, may get two or three bids from the nearest suppliers, or may simply include its locker order in a package with other loose equipment needs.

One industrial building contractor estimates that less than half of the new manufacturing buildings require lockers. For many of these, lockers are likely to be secondary to bins and shelving in terms of the dollar importance of their purchases (and the equipment manufacturer's sales). Sales of bins and shelving are direct, rather than through the contractor and architect.

The building contractors replying to the questionnaire reported that they purchased 274 metal lockers in 1957 for factory buildings they built or enlarged. As to locker purchases by the owners of such buildings, the same group of contractors reported only 30 for 1957. Projecting the reported locker purchases by the contractors to the entire group of 123 queried, estimating that the latter represent 90 per cent of all contractors erecting or enlarging factories in Georgia during 1957, and assuming that all contractors together furnish 25 per cent of all lockers bought for factories, the resulting total estimate for Georgia factories in 1957 is 6,240.

Hospitals--Georgia

According to public health officials, the Georgia Hospital Authority program represents about 70 per cent of the State's total hospital construction. The GHA also constructs auxiliary facilities, including public health centers, rehabilitation centers, diagnostic and treatment centers, and nurse training facilities. The current GHA program involves annual construction expenditures of about nine million dollars.

Using available data on scheduled construction of hospitals and related facilities, and estimating methods suggested by a public health official familiar with the State's hospitals and their equipment needs, it appears that annual requirements of locker openings are currently about 2,300. This includes an estimate for hospitals in the State not covered in the GHA program. In 1957, the total apparent requirement was about 1,300.

Procurement methods vary. One Atlanta hospital reports that its built-in lockers (for example, in patients' private rooms) are furnished

by the building contractor. The movable lockers were purchased mostly from local dealers, although a few were bought from a small local manufacturer who makes a few occasionally.

The GHA data are perhaps the most reliable and complete found for any user group. Therefore, since trade estimates indicate that this user group should account for no less than five per cent of the Georgia total, the above estimates for hospitals and related health facilities strongly suggest that the State total for all uses is in the range of 45-50,000.

Other User Groups--Georgia

Miscellaneous user groups are thought to account for about ten per cent of the total lockers market in Georgia. These include post offices and other public buildings, warehouses, commercial office buildings, shops and restaurants. Most of these establishments usually require only a few lockers for maintenance workers and others regularly needing to change clothes at their place of work.

Others in the miscellaneous category include churches and commercial recreational facilities. Swimming pools, golf clubs, and bowling establishments use lockers and/or wire baskets. The City of Atlanta uses baskets entirely in its bath houses, and purchased only 107 metal lockers in 1957. An increasing number of the larger churches in Georgia are adding recreational facilities. In some cases they are buying gymnasium equipment and lockers.

Recapitulation of Estimates, Sales and Potentials in Georgia

Reducing total United States shipments of metal lockers in 1954 (2.9 million openings) to a per capita basis, Georgia's "share" of shipments received should have been about 64,000 openings. For estimated total 1957 shipments (4 million openings) it would have been approximately 88,000. The evidence at hand indicates that sales in the State have been appreciably below the United States per capita average.

On the basis of questionnaire and interview results, 1957 sales by user groups in Georgia appear to have been about as follows:

Schools (mainly public high schools)		32,000
Factories		6,200
Hospitals		1,300
All Other*		4,000
	Total	43,500

As a rough check on the 1957 sales estimates, the ratio of the value of total United States shipments of metal lockers to United States personal income was applied to Georgia personal income in 1957. In 1947 the ratio of the value of shipments of metal lockers in the United States to United States personal income was .00005445. In 1954 it was .00008310. Assuming that the United States trend is still upward (primarily because of continuing large increases in school population) and that the Georgia ratio is less than that of the United States, the .00008310 ratio was used with the 1957 estimate for Georgia personal income of some $5.5 billion. By this method an estimate of about $457,000 was obtained for metal locker sales in Georgia in 1957. At a rough average value of $32 per 100 pounds,** this represents some 1,428,125 pounds of product. For double-tier lockers averaging 35 pounds per opening, this amount would average out roughly as 40,800 locker openings.

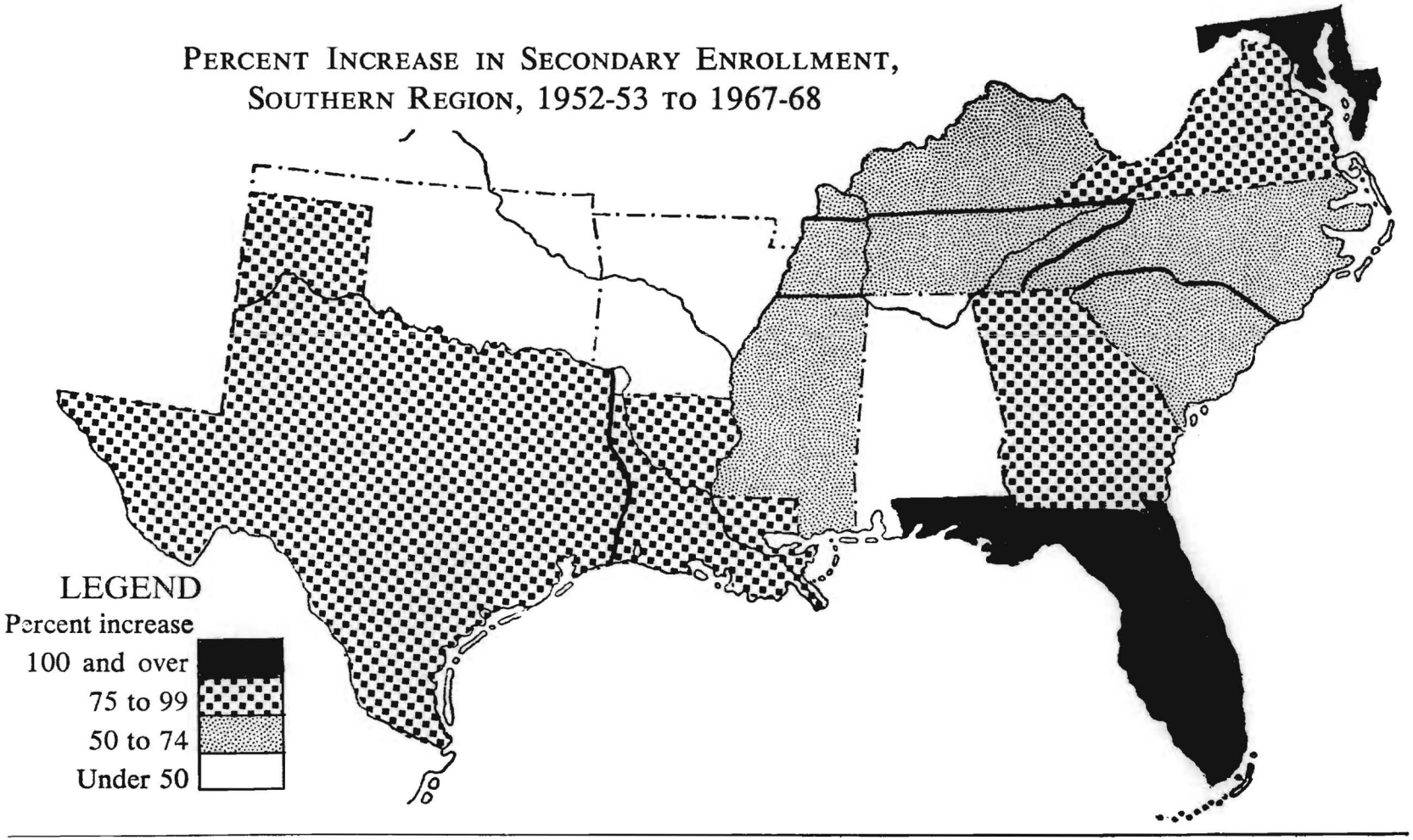
An analysis of questionnaire and interview results suggests a range of about 42,000 to 54,000 locker openings as the probable annual sales potential in Georgia for the 1958-1959 biennium, with considerable increases indicated for the 1960's. By user groups, the composition of the range is as follows:

	A (locker openings)	B (locker equivalents)
Schools	30,000	36-39,500
Factories	6-7,000	6-7,000
Hospitals	2,300	2,300
All Other	4-5,000	4-5,000
Total	42,300 to 44,300	48,300 to 53,800

*The estimate for "all other" is derived as follows: Georgia contractors answering the questionnaire reported purchases of 504 lockers in 1957 for all buildings other than schools. Projecting this to the entire group of 123 major contractors, assuming that they represent 90 per cent of all contractors buying lockers for these buildings in Georgia, and assuming that all contractors furnish 25 per cent of all lockers bought for such buildings, the inflated total is 11,484. Subtracting the separate estimates for factories and hospitals, the remainder is approximately 4,000.

**Computed from a manufacturer's catalog.

PERCENT INCREASE IN SECONDARY ENROLLMENT, SOUTHERN REGION, 1952-53 TO 1967-68



Source: Southern Regional Education Board

Schools

Fully comparable data have not been obtained for Florida and other neighboring areas. However, such information as is at hand strongly suggests that the significant market demand factor in Florida is the continuing steep rate of increase in high school enrollment and attendance. Also, because of the generally high level of per capita and family income here, it is reasonable to suppose that effective demand for lockers is close to total requirements, as measured by average daily attendance (ADA) or by net enrollment.

Apparently the projected increases in Florida's secondary school enrollment made several years ago by the Southern Regional Education Board are now being fulfilled in ample measure, or even exceeded. Direct comparison with current actual figures is not feasible, because the projections were for grades nine through twelve. However, the SREB's projected total enrollment for all grades (elementary and secondary) in 1957-58 was 734,000; actual total ADA (preliminary data) is 742,979. ADA is ordinarily about 85 to 90 per cent of total enrollment.

The expected increase in ADA from 1957-58 to 1958-59 for Florida's high schools is 25,625, a nine per cent increase; this is for grades seven through twelve, inclusive.

The SREB figures for total projected enrollment in Florida's secondary schools (grades nine through twelve) are as follows for recent, current and future years:

School Year	Total	Increase from Previous Year
1955-56	142,600	8,700
1956-57	152,900	10,300
1957-58	166,700	13,800
1958-59	179,500	12,800
1959-60	191,900	12,400
1960-61	203,200	11,300
1961-62	223,000	19,800
1962-63	239,900	16,900
1963-64	257,900	18,000
1964-65	273,800	15,900

Most of the 1,845 classrooms being constructed in Florida during the 1957-58 school year are reported to be for elementary grades. It

seems clear that a great amount of high school construction is in store to meet the large continuing increases in high school enrollment.

The Florida building contractors replying to the questionnaire (19 out of 205, or 9.3 per cent) stated that they purchased 12,449 locker openings for schools in 1957. The small size of the sample suggests a need for discounting procedures in making ordinary projections. After adjustment for the contingency that reporting contractors bought lockers at twice the average or median rate for the group as a whole, and using a series of inflating factors which seem conservative,* the indicated total for Florida schools is a little under 100,000.

Hospitals

Using available data on Florida's scheduled construction of hospitals and related facilities, and the same estimating methods as for Georgia's hospitals, current annual requirements of locker openings appear to be about 3,400. No estimate is included for hospitals in the State which may not be covered by the Florida State Plan, which is administered by the Hospital Department of the Florida Development Commission. Therefore, the figure of 3,400 may be somewhat low for all hospitals and ancillary medical facilities in Florida.

Other User Groups

Building contractors responding to the questionnaire reported purchases of only 982 lockers for structures other than schools. An additional 296 lockers were purchased for such structures by others (presumably the owners), according to the contractors.

Two assumptions are made after projecting from the sample to the entire group of 205 large contractors queried. The first is that the group of 205 represents 90 per cent of all contractors buying lockers for these buildings in Florida. The second assumption is that all contractors furnish 25 per cent of all lockers bought for such buildings.

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*The group of 205 major contractors queried is assumed to account for 90 per cent of high school construction in Florida, and the estimated total number of locker openings supplied by 100 per cent of such construction is estimated as accounting for 75 per cent of all school locker openings purchased through all channels in 1957. The computed schools total by this method is 99,592.

On the basis of the foregoing assumptions, the inflated total for all user groups except schools is 47,092. Since the sample of responses is quite small (about 9.3 per cent of the total), projections from it are especially hazardous. Also, it is likely that those replying bought more lockers than did the average or median contractor in the group.

Estimated Florida Market Potential

The available evidence, incomplete as it is, does suggest that there is a strong and continuing demand for metal lockers in Florida, particularly in schools, hospitals, and presumably recreational establishments. As to distribution among major user groups, it appears likely that schools may account for much more than 60 per cent of the total (the estimated proportion nationwide).

Using as a general guide the several indicators developed elsewhere in the report, the total Florida sales potential is estimated to range between 70,000 and 140,000 locker openings annually.

SOUTH CAROLINA

Schools

The Southern Regional Education Board forecasts that enrollment at all educational levels will rise substantially in South Carolina between the 1950's and the 1970's. Secondary schools' enrollment is expected to climb steeply until about 1965, when the growth will slacken. By 1965, the predicted enrollment is 151,300 or some 46,000 more than the 1956 level. For grades nine through twelve, the SREB projections are as follows:

School Year	Total	Increase from Previous Year
1955-56	105,000	7,100
1956-57	113,600	8,600
1957-58	122,400	8,800
1958-59	128,700	6,300
1959-60	130,800	2,100
1960-61	132,700	1,900
1961-62	128,800	6,100
1962-63	143,700	4,900
1963-64	148,600	4,900
1964-65	151,300	2,700

Statistics for average daily attendance as kept by the State Department of Education are not strictly comparable with SREB enrollment projections. The former include some schools having grades eight through twelve, and others having grades nine through twelve, inclusive. The latest ADA figures and projections are:

1956-57	153,936
1957-58	157,000
1958-59	160,000

As of May, 1958, 321 high school classrooms were under construction. The corresponding student load is 8,025. In addition, 41 instructional units are planned, but not yet under construction.

From the above figures, demand for all educational institutions is estimated to be in the range of 8,000 to 12,000 locker equivalents annually in 1958 and 1959. Taking these figures as representing 60 per cent of the statewide totals for all user groups, the projected total South Carolina market potential is 13,000 to 20,000 locker openings annually.

Throughout the region and the country as a whole, favorable factors for the future well-being of the metal locker industry include continuing large increases in population, high school enrollment, college enrollment, and recreational facilities. One adverse factor for the immediate future is the slowdown in capital spending on new plants and equipment. However, the consensus among trade sources is that demand for lockers in schools far outweighs the demand in factories.

Despite tremendous increases in the country's school enrollments from 1950 to 1956, estimates by the United States Department of Health, Education and Welfare indicate that further sharp increases are yet in store--32 per cent for high schools during the next five years. Projections of school enrollment by the Southern Regional Education Board, moreover, show substantial increases in Georgia and Florida between now and 1965.

Estimates for aggregate sales potential in the primary or "nucleus" market area are therefore as follows:

State		Estimated Annual Sales Potential in 1958-59 (No. of locker openings)
Georgia		42,000 to 54,000
Florida		70,000 to 140,000
South Carolina		13,000 to 20,000
	Total	125,000 to 214,000

V

SOME MAJOR ASSETS OF A GEORGIA PLANT LOCATION

For the manufacture of metal lockers, there are several important advantages offered by a Georgia location within the eastern or western zones described in another section of this report.

1. Proximity to Atlanta, the South's leading distribution center.

2. Lower delivered freight costs to increasingly important markets in Florida, Georgia, and other areas in the Southeast.

3. Nearness to steel warehouses and (for the western zone) steel mills--ready accessibility to raw materials.

4. A favorable ratio of labor productivity to labor costs; and an adequate labor supply at wage rates below the industry average.

5. Technical training facilities, if desired, at the Southern Technical Institute.

This manufacturing opportunity is one best suited for a branch plant of a leading established producer, or for an experienced Georgia manufacturer of similar products who may wish to diversify. Three important requisites include (1) proper tooling, and adequate experience in this type of metal working; (2) adequate capitalization; and (3) an effective sales development program.

The qualified firms already know their production costs for this type of operation and can readily compute their probable rates of return. Any supplementary information desired, particularly as regards cost factors in Georgia, can be developed in response to specific inquiries. A general indication of cost and profit probabilities is set out in Appendix C for illustrative purposes.

One extremely important variable in any cost and profitability calculation is the product mix. There are great numbers of related steel products; one of the major companies in the industry produces some 1500 different items. A major producer establishing a plant in Georgia would already have selected his specialties and product mix

on the basis of experience. A Georgia firm deciding to expand into lockers would be likely to retain some or all of the items it is now making.

Several factors would determine what share of the total market for lockers in Georgia and other parts of the primary market area might be obtained by a new manufacturer in the State. Much would depend on the effectiveness of his sales development program with architects, school officials, building contractors, and other major customer groups. Both price and quality would count heavily in most cases. Next would come good service on parts. Apparently most important user groups are already well disposed toward one or more of the leading manufacturers, particularly as to quality. So it would seem prudent for a newcomer to be prepared to undertake a vigorous sales and customer-education campaign, for the first few years at least.

APPENDIX A

ILLUSTRATIVE RAIL FREIGHT RATES

ON METAL LOCKERS

FROM SELECTED POINTS OF ORIGIN

TO SELECTED DESTINATIONS IN THE SOUTHEAST

(Carload and LCL rates)

Sources: Georgia Railroad and
Central of Georgia Railway Company

A. Rates from origin in east central Georgia compared with competing out-of-state origin points.

METAL LOCKERS, CL (Rates in cents per 100 pounds)

DESTINATION	Min. Wt. 1000#	ORIGIN			
		SPARTA, GA.	AURORA, ILL.	YORK, PA.	B'HAM ALA.
Jacksonville, Florida	10	167	342	276	208
	12	152	316	253	190
	15	138	290	232	172
	18	-	265	213	-
	22	*112	242	195	*142
	30	103	219	177	128
Savannah, Georgia	10	138	329	247	203
	12	127	302	222	187
	15	117	277	209	169
	18	-	256	192	-
	22	* 96	232	175	*138
	30	86	210	159	126
Charleston, S. C.	10	150	327	231	212
	12	138	301	213	197
	15	127	276	195	181
	18	-	253	179	-
	22	*104	231	161	*146
	30	93	209	148	134
Columbia, S. C.	10	135	298	231	198
	12	125	276	213	182
	15	112	253	195	167
	18	-	232	179	-
	22	* 92	210	161	*135
	30	85	192	148	125
Greenville, S. C.	10	148	287	231	177
	12	135	265	213	161
	15	126	242	195	148
	18	-	220	179	-
	22	*103	203	161	*120
	30	92	184	148	110
Spartanburg, S. C.	10	150	282	231	187
	12	138	261	213	170
	15	127	238	195	155
	18	-	219	179	-
	22	*104	199	161	*127
	30	93	180	148	117

DESTINATION	Min. Wt. 1000#	ORIGIN			
		SPARTA, GA.	AURORA, ILL.	YORK, PA.	B'HAM, ALA.
Columbus, Georgia	10	117	287	287	126
	12	108	265	265	113
	15	97	242	242	106
	18	-	220	220	-
	22	* 82	203	203	* 86
	30	71	184	184	78
LaGrange, Georgia	10	126	287	287	126
	12	113	265	265	113
	15	106	242	242	106
	18	-	220	220	-
	22	* 86	203	203	* 88
	30	78	184	184	78
Rome, Georgia	10	135	261	267	110
	12	125	239	247	99
	15	112	219	228	92
	18	-	203	209	-
	22	* 92	184	189	* 75
	30	85	169	173	68
Birmingham, Alabama	10	167	256	298	-
	12	152	235	276	-
	15	138	216	250	-
	18	-	197	231	-
	22	*112	179	210	-
	30	103	161	190	-
Pensacola, Florida	10	192	307	322	160
	12	179	286	298	146
	15	161	261	273	134
	18	-	239	250	-
	22	*130	218	229	*108
	30	120	197	206	99
Panama City, Florida	10	169	316	308	169
	12	155	291	286	155
	15	142	267	263	142
	18	-	246	239	-
	22	*117	225	219	*117
	30	106	204	199	106
Knoxville, Tennessee	10	177	238	232	160
	12	161	218	216	146
	15	148	199	197	134
	18	-	184	180	-
	22	*120	169	161	*108
	30	110	152	150	99

DESTINATION	Min. Wt. 1000#	ORIGIN			
		SPARTA, GA.	AURORA, ILL.	YORK, PA.	B'HAM ALA.
Charlotte, N. C.	10	173	-	199	-
	12	158	-	184	-
	15	143	-	169	-
	22	*117	-	141	-
	30	107	-	130	-
Winston-Salem, N. C.	10	194	-	175	-
	12	177	-	160	-
	15	161	-	148	-
	22	*132	-	122	-
	30	121	-	112	-
Greensboro, N. C.	10	199	-	160	-
	12	185	-	148	-
	15	167	-	135	-
	22	*135	-	112	-
	30	124	-	102	-
Raleigh, N. C.	10	199	-	167	-
	12	185	-	152	-
	15	167	-	135	-
	22	*135	-	117	-
	30	124	-	108	-
Danville, Virginia	10	210	-	140	-
	12	194	-	130	-
	15	175	-	117	-
	22	*143	-	99	-
	30	131	-	89	-
Richmond, Virginia	10	222	-	182	-
	12	216	-	164	-
	15	197	-	152	-
	22	*160	-	128	-
	30	147	-	117	-

EAST & CFA		SOUTH	
40'9" or less	40'9"-50'7"	40'9" or less	40'9"-50'7"
10	16	10	16

EAST & CFA		SOUTH	
12	18	12	18
15	21	15	22
18	24	20	29
22	30	30	40
30	40		

* - 20M # minimum weight

METAL LOCKERS, LCL (Rates in cents per 100 pounds)

DESTINATION	ORIGIN			
	SPARTA	AURORA	YORK	B'HAM
Jacksonville, Florida	362	753	658	450
Savannah, Georgia	299	722	584	442
Charleston, South Carolina	334	722	533	472
Columbia, South Carolina	298	668	523	430
Greenville, South Carolina	320	638	523	388
Spartanburg, South Carolina	325	627	513	409
Columbus, Georgia	263	648	658	284
LaGrange, Georgia	278	638	638	294
Rome, Georgia	292	574	597	264
Birmingham, Alabama	362	565	648	-
Pensacola, Florida	420	692	753	344
Panama City, Florida	374	699	741	367
Knoxville, Tennessee	374	523	523	351

B. Rates from origin in west central Georgia compared with competing out-of-state origin points.

METAL LOCKERS (Cents per 100 pounds)

FROM Birmingham, Ala. TO	CARLOAD A	B	C	D	E	F	LCL
Mobile, Ala.	140	129	118	108	97	86	344
Montgomery, Ala.	95	88	80	74	66	58	234
Pensacola, Fla.	140	129	118	108	97	86	351
Atlanta, Ga.	117	108	99	90	80	71	294
Rome, Ga.	105	97	89	81	72	64	264
Greensboro, N. C.	196	182	166	151	135	120	493
Salisbury, N. C.	188	173	160	145	130	116	472
Wilmington, N. C.	211	196	180	164	147	130	532
Winston-Salem, N. C.	196	182	166	151	135	120	493
Cheraw, S. C.	192	179	163	148	133	118	483
Bristol, Va.-Tenn.	171	159	145	132	119	106	430
FROM Columbus, Ga. TO							
Mobile, Ala.	144	132	122	111	100	89	362
Montgomery, Ala.	93	86	79	72	64	58	236
Pensacola, Fla.	140	129	118	108	97	86	351
Atlanta, Ga.	101	93	86	78	70	62	250
Rome, Ga.	117	108	99	90	80	71	288
Greensboro, N. C.	188	173	160	145	130	116	472
Salisbury, N. C.	175	163	149	135	122	108	442
Wilmington, N. C.	192	179	163	148	133	118	483
Winston-Salem, N. C.	184	169	155	142	127	113	461
Cheraw, S. C.	171	159	145	132	119	106	430
Bristol, Va.-Tenn.	180	166	151	138	125	110	450
FROM Aurora, Ill. TO							
Mobile, Ala.	280	258	236	215	194	172	658
Montgomery, Ala.	258	237	218	202	181	161	616
Pensacola, Fla.	293	271	249	226	203	180	692
Atlanta, Ga.	258	237	218	198	178	159	607
Rome, Ga.	244	225	206	188	169	150	574
Greensboro, N. C.	280	258	236	215	194	172	658
Salisbury, N. C.	280	258	236	215	194	172	658
Wilmington, N. C.	311	287	263	240	215	192	732
Winston-Salem, N. C.	276	254	233	212	190	169	648
Cheraw, S. C.	293	271	249	226	203	180	692
Bristol, Va.-Tenn.	241	222	204	185	167	148	565

FROM Canton, Ohio TO		A	B	C	D	E	F	LCL
Mobile,	Ala.	301	278	255	232	208	186	710
Montgomery,	Ala.	276	254	233	212	190	169	648
Pensacola,	Fla.	301	278	255	232	208	186	710
Atlanta,	Ga.	253	234	214	195	176	156	597
Rome,	Ga.	241	222	204	185	167	148	565
Greensboro,	N. C.	226	209	192	175	157	139	533
Salisbury	N. C.	231	213	195	178	160	142	544
Wilmington,	N. C.	267	246	225	205	185	164	627
Winston-Salem,	N. C.	222	205	188	171	153	137	523
Cheraw,	S. C.	258	237	218	198	178	159	607
Bristol,	Va.-Tenn.	200	186	170	155	139	123	473

FROM York, Pa. TO		H	I	K	L	M	N	
Mobile,	Ala.	322	298	273	250	229	206	753
Pensacola,	Fla.	322	298	273	250	229	206	753
Montgomery,	Ala.	298	276	250	231	210	190	678
Rome,	Ga.	267	247	228	209	189	173	597
Atlanta,	Ga.	267	247	225	206	189	170	607
Salisbury,	N. C.	184	169	156	141	131	117	451
Winston-Salem,	N. C.	175	160	148	135	122	112	442
Greensboro,	N. C.	159	148	135	122	112	102	420
Wilmington,	N. C.	199	184	169	156	141	130	461
Cheraw,	S. C.	220	204	189	173	158	143	473

Minimum Weight	In cars 40 ft.9 in. or less in length	In cars exceeding 40 ft.9 in. but not exceeding 50 ft.7 in. in length
A	10,000 lbs.	14,000 lbs.
B	12,000 "	16,800 "
C	15,000 "	21,000 "
D	18,000 "	25,000 "
E	22,000 "	30,800 "
F	30,000 "	42,000 "
H	10,000 "	16,000 "
I	12,000 "	18,000 "
K	15,000 "	21,000 "
L	18,000 "	24,000 "
M	22,000 "	30,000 "
N	30,000 "	40,000 "

APPENDIX B

QUESTIONNAIRES

EXHIBIT A

QUESTIONNAIRE TO PUBLIC SCHOOL SUPERINTENDENTS IN GEORGIA

(1) For all HIGH SCHOOLS in your system, total net enrollment is _____, total average daily attendance is _____.

(2) How many metal lockers were bought for HIGH SCHOOLS in your system during calendar year 1957, expressed in number of openings (doors)?

_____

(3) Please show the total supply of metal lockers (number of doors) _____ and of gym baskets (number) _____ for HIGH SCHOOLS in your system, including any on order.

(4) If there is a "deficit" of either metal lockers or gym wire baskets, please indicate how many more are needed:

_____ (openings) metal lockers

_____ wire gym baskets

EXHIBIT B

QUESTIONNAIRE TO SELECTED BUILDING CONTRACTORS IN GEORGIA AND FLORIDA*

Approximate total number of metal lockers YOU PURCHASED in 1957, for all contract construction clients:
Please count each double-tier locker as "2" . . . . . _____

Breakdown of above total, if available, for:

Schools _____

Factories _____

All Other _____

For any new building/additions you completed in 1957 but did NOT provide lockers, please give your estimate of total number of lockers bought by others for those same structures. . . . . _____

NOTE: If any of the construction referred to above was outside the 3-state area of Florida, Georgia, and South Carolina, please indicate approximate percentage in all "outside" areas . . . . . _____

* Firms selected are believed to include substantially all of the companies obtaining school building contracts and accounting for most non-residential construction in Georgia and Florida.

APPENDIX C

METAL LOCKER MANUFACTURING: ILLUSTRATIVE CALCULATION OF PROFITABILITY[1/]

Fixed Investment		
Machinery and dies		$250,000
Paint line and finishing facilities, installed		15,000
Installation of machinery		5,000
	Total	$270,000
Annual Mill Costs		
Amortization of fixed investment in ten years		$ 27,000
Lease of building (15,000 square feet @ $.60) [2/]		9,000
Taxes and insurance		
a. property taxes	$5,400	
b. insurance	2,700	8,100
Wages and salaries		
a. labor cost, 48,000 openings @ $160 per 100 openings		76,800
b. administrative and supervisory salaries		20,000
Raw materials and supplies including scrap loss, 48,000 openings @ $1,900 per 300 openings		304,000
Utilities		5,000
Repairs and maintenance		5,000
	Sub-total	$454,900
	Contingencies, 10%	45,500
	Total	$500,400
Manufacturer's annual sales 48,000 openings (80% of capacity) @ average value of $12 per unit [3/]		$576,000
Annual mill costs		-500,400
Manufacturer's gross profit		$ 75,600
Return on fixed investment (before taxes[4/])		28%
Working capital (say, 25% of annual mill costs)		125,000
Return on total investment (before taxes[4/])		19%

1/ Based on equipment and operating cost estimates obtained by Industrial Development Branch. Because of the many variables involved in any specific enterprise, it must be emphasized that these figures can serve as no more than rough indicators.

2/ Assumes that a community or civic-minded business group will make a suitable building available on a rental or lease-purchase basis. Estimated cost of building: $90,000 to $100,000.

3/ Based on trade estimate of U.S. total value of shipment in 1957 (4 million units totaling $50 million, or $12.50 per opening).

4/ Including non-recurring use tax of three per cent on machinery and equipment.